

EXHIBIT E

FP32 multiply.

BF20 outputs.

Progress (of 64) 0----- 1----- 2----- 3----- 4----- 5----- 6---

Done.

Total number of inputs checked= 4294967296(100000000)

Valid inputs don't produce NaN, Overflow (Inf), or Underflow (i.e. 0 when exact is not 0).

Number of Valid Inputs to Multiply 3275835469(c341484d)

error range [20.00%, 50.00%), valid inputs in range 0.25% (8032994), in or above range= 0.25%
error range [10.00%, 20.00%), valid inputs in range 0.22% (7147980), in or above range= 0.46%
error range [5.00%, 10.00%), valid inputs in range 0.23% (7513664), in or above range= 0.69%
error range [2.00%, 5.00%), valid inputs in range 0.31% (10245903), in or above range= 1.01%
error range [1.00%, 2.00%), valid inputs in range 0.24% (7905623), in or above range= 1.25%
error range [0.50%, 1.00%), valid inputs in range 0.24% (8001448), in or above range= 1.49%
error range [0.20%, 0.50%), valid inputs in range 0.33% (10707193), in or above range= 1.82%
error range [0.10%, 0.20%), valid inputs in range 0.25% (8174169), in or above range= 2.07%
error range [0.05%, 0.10%), valid inputs in range 0.25% (8247124), in or above range= 2.32%
error range [0.02%, 0.05%), valid inputs in range 40.00% (1310208159), in or above range=42.32%
error range [0.01%, 0.02%), valid inputs in range 28.84% (944695364), in or above range=71.15%
error range [0.00%, 0.01%), valid inputs in range 28.85% (944955848), in or above range=100.00%

Of all possible inputs (more than valid inputs)

Nan 0.78% (33488896 counts)

Inf 12.52% (537824654 counts)

Und 10.43% (447818277 counts)

Summary for spreadsheet. Inputs fp32. Output bf20.

1.25%

1.49%

1.82%

2.07%

2.32%

0.78%

12.52%

10.43%

ignore: nan